

CLAIMS

1. A method for molding a lens of noncircular shape adapted to a
5 wearer's prescription and to the shape of the frame chosen by the wearer,
comprising the steps of :

- supplying a first mold (2) which is substantially in the shape of the lens
to be obtained and trimming the first mold (2) ;
- supplying a second mold (6) and trimming the second mold (6) ;
- 10 - molding and curing a setting material (4) between the first mold and a
second mold (6) ;
- removing the lens obtained from the mold.

2. The method as claimed in claim 1, characterized in that the curing
15 step is a step of partial curing, and in that it also comprises a step of total curing of
the lens.

3. The method as claimed in claim 1 or 2, characterized in that the step
of molding and curing comprises a step of assembling the molds followed by a
20 curing step.

4. The method as claimed in claim 2 or 3, characterized in that the
partial curing step lasts less than 3 minutes.

25 5. The method as claimed in claim 2, 3 or 4, characterized in that the
total curing step lasts between 5 and 30 minutes.

30 6. The method as claimed in claim 5, characterized in that it involves a
step of removing mold-positioning devices after the partial curing step and before
the total curing step.

7. The method as claimed in claim 5 or 6, characterized in that the
partial curing step comprises an irradiation of the setting material (4) preferably by
irradiation from only one side of the assembly of the first and second molds.

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8. The method as claimed in claim 5, 6 or 7, characterized in that the
total curing step comprises an irradiation of the setting material (4), preferably by
irradiation from both sides of the assembly of the first and second molds.

9. The method as claimed in one of claims 5, 6 and 7, characterized in that the total curing step comprises the heating of the setting material.

5 10. The method as claimed in one of claims 1 to 9, characterized in that the demolding step comprises the application of a thermal shock to the assembly of the first and second molds.

10 11. The method as claimed in one of claims 1 to 10, characterized in that it involves a step of supplying a second mold (6) in the shape of the lens to be obtained.

12. The method as claimed in one of claims 1 to 11, characterized in that the lens is an ophthalmic lens.

15 13. The method as claimed in one of claims 1 to 12, characterized in that the step of molding and curing comprises a step of assembling molds followed by a curing step, the mold-assembling step comprises the adjustment of the position of the molds such that they are in contact at one point on the periphery of 20 the first mold (2), or such that they are 1 mm or less away from the periphery of the first mold (2).

14. A lens obtained according to the method of one of claims 1 to 13.

25 15. An untrimmed molded lens of noncircular shape.

--17. (New) The method of claim 16, wherein the step of molding and curing comprises a step of assembling the molds, a step of molding the setting material, and a step of curing the molded material.--

--18. (New) The method of claim 16, wherein the step of curing comprises irradiating the setting material (4).--

--19. (New) The method of claim 18, wherein the step of irradiating is carried out from one side only of an assembly of the first and second molds.--

--20. (New) The method of claim 16, wherein the step of curing comprises heating of the setting material.--

--21. (New) The method of claim 16, further comprising, before the step of removing a step of applying a thermal shock to the assembly of the first and second molds.--

--22. (New) The method of claim 17, wherein the step of assembling comprises adjusting a position of the first and second molds such that they are in contact at one point on a periphery of the first mold (2).--

--23. (New) The method of claim 17, wherein the step of assembling comprises adjusting a position of the first and second molds such, or such that at one point the second mold is 1 mm or less away from a periphery of the first mold (2).--

--24. (New) The method of claim 16, wherein the step of curing comprises :
- a step of partial curing, and
- a step of total curing of the lens.--

--25. (New) The method of claim 24, wherein the step of partial curing lasts less than 3 minutes.--

--26. (New) The method of claim 24, wherein the step of total curing lasts between 5 and 30 minutes.--

--27. (New) The method of claim 16, wherein the step of molding and curing comprises :

- a step of assembling the first and second molds using at least one mold-positioning devices;
- a step of molding the setting material between the first and second molds;
- a step of partial curing of the setting material
- a step of removing said at least one mold-positioning device
- a step of total curing.--

--28. (New) The method of claim 27, wherein the step of partial curing comprises irradiating the setting material (4).--

--29. (New) The method of claim 28, wherein the step of partial curing comprises irradiating the setting material (4) from one side only of the assembly of the first and second molds.--

--30. (New) The method of claim 27, wherein the step of total curing comprises irradiating the setting material (4) from both sides of the assembly of the first and second molds.-

--31. (New) The method of claim 27, wherein the step of total curing comprises heating the setting material.--

--32. (New) A method for molding a lens of noncircular shape adapted to a wearer's prescription and to the shape of the frame chosen by the wearer, comprising the steps of :

- supplying a first mold (2) which is substantially in the shape of the lens to be obtained and trimming the first mold (2) ;

- supplying a second mold (6) which is substantially in the shape of the lens to be obtained.;

- molding and curing a setting material (4) between the first mold and a second mold (6) ;

- removing the lens obtained from the mold.--

--33. (New) The method of claim 32, wherein the step of molding and curing comprises a step of assembling the molds, a step of molding the setting material, and a step of curing the molded material.--

--34. (New) The method of claim 32, wherein the step of curing comprises irradiating the setting material (4).--

--35. (New) The method of claim 34, wherein the step of irradiating is carried out from one side only of an assembly of the first and second molds.--

--36. (New) The method of claim 32, wherein the step of curing comprises heating of the setting material.--

--37. (New) The method of claim 32, further comprising, before the step of removing a step of applying a thermal shock to the assembly of the first and second molds.--

--38. (New) The method of claim 33, wherein the step of assembling comprises adjusting a position of the first and second molds such that they are in contact at one point on a periphery of the first mold (2).--

--39. (New) The method of claim 33, wherein the step of assembling comprises adjusting a position of the first and second molds such, or such that at one point the second mold is 1 mm or less away from a periphery of the first mold (2).--

--40. (New) The method of claim 32, wherein the step of curing comprises :

- a step of partial curing, and
- a step of total curing of the lens.--

--41. (New) The method of claim 40, wherein the step of partial curing lasts less than 3 minutes.--

--42. (New) The method of claim 40, wherein the step of total curing lasts between 5 and 30 minutes.--

--43. (New) The method of claim 32, wherein the step of molding and curing comprises :

- a step of assembling the first and second molds using at least one mold-positioning devices;
- a step of molding the setting material between the first and second molds;
- a step of partial curing of the setting material
- a step of removing said at least one mold-positioning device
- a step of total curing.--

--44. (New) The method of claim 43, wherein the step of partial curing comprises irradiating the setting material (4).--

--45. (New) The method of claim 43, wherein the step of partial curing comprises irradiating the setting material (4) from one side only of the assembly of the first and second molds.--

--46. (New) The method of claim 43, wherein the step of total curing comprises irradiating the setting material (4) from both sides of the assembly of the first and second molds.-

--47. (New) The method of claim 43, wherein the step of total curing comprises heating the setting material.--

--48. (New) The method of claim 16, wherein the lens is an ophthalmic lens.--

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--49. (New) The method of claim 32, wherein the lens is an ophthalmic lens.--

--50. (New) An untrimmed molded lens of noncircular shape.--

--51. (New) A lens obtained according to the method of claim 16.--

--52. (New) A lens obtained according to the method of claim 32.--